

CLAIMS

1. A cipher information containing material provided with a particulate information presenting substance, characterized in that:

the information presenting substance comprises one or more elements which emit a different range of fluorescence depending on their production history when is exposed to a specific wavelength range of electromagnetic wave, a compound of two or more of the elements, or a substance containing the elements or the compound, and

the information presenting substance is assigned with a mode of cipher information since having been produced by the production history corresponding to the cipher information.

2. The cipher information containing material according to claim 1, wherein the information presenting substance is arranged to emit one or more line spectrum depending on the production history when exposed to the predetermined wavelength range of electromagnetic wave.

3. The cipher information containing material according to claim 1 or 2, wherein the information presenting substance includes a transition element of incomplete 3d shell and/or a transition element of incomplete 4f shell.

4. The cipher information containing material according to any of claims 1 to 3, wherein the information presenting substance ranges from 1 nm to 1000 nm in the particle diameter.

5. The cipher information containing material according to any of claims 1 to 4, wherein the information presenting substance is coated at the outer surface with another substance.

6. A method of identifying the cipher information containing material comprising the steps of:

irradiating a specified wavelength range of electromagnetic wave to the cipher information containing material and detecting the fluorescence emitted from the information presenting substance in response to the irradiation;

specifying from the result of the fluorescence emitted from the information presenting substance the cipher information determined by the production history of the information presenting substance; and

identifying the cipher information containing material from the specified cipher information.

7. An identifying system for identifying the cipher information containing material, comprising:

a detecting means for irradiating a predetermined wavelength range of electromagnetic wave to the cipher information containing material and detecting the fluorescence emitted from the

information presenting substance in response to the irradiation;

a specifying means from the result of the fluorescence emitted from the information presenting substance the cipher information determined by the production history of the information presenting substance; and

an identifying means for identifying the cipher information containing material from the cipher information.